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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,966	10/29/2003	Michael Stanley DeCourcy	A01465	7997

21898 7590 09/21/2007
ROHM AND HAAS COMPANY
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EXAMINER

JOHNSON, EDWARD M

ART UNIT	PAPER NUMBER
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1754

MAIL DATE	DELIVERY MODE
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09/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/695,966

Applicant(s)

DECOURCY ET AL.

Examiner

Edward M. Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5 and 11-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Cochran et al. US 6,499,412 in view of Beer '715.

Regarding claim 1, Cochran '412 discloses a method for treating waste streams comprising feeding the stream comprising NO_x and CO to a thermal oxidizer or combustor and combusting at a location 18, (see column 4, lines 34-56 and Fig. 1), wherein a stream comprising nitrogen, oxygen, NO_x, carbon dioxide, CO, VOCs, and water is analyzed at location 20 downstream from 18 (Fig. 1), and wherein the waste may be liquid waste from acrylonitrile, acrylic acid, or methacrylic acid production (column 1, lines 15-35). Cochran discloses VOCs and hydrocarbons, which would at least suggest aliphatic hydrocarbons and/or aromatics.

Cochran fails to disclose injecting at a downstream location of a multi-zone thermal oxidizer.

Beer discloses a method for reduction of NO_x emissions comprising introducing into a combustor and combusting (abstract and claim 1), wherein the combustor comprises two zones and coal waste gas is introduced at a downstream location (claim 7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the downstream injection of Beer in the thermal oxidation waste stream treatment method of Cochran because Beer discloses such injection in a process for treatment of reduction of NO_x emissions comprising introducing into a combustor and combusting (abstract and claim 1) to mix with hydrocarbon fragments of fuel, which would motivate the ordinarily skilled artisan to perform such injection so as to achieve such mixing, as disclosed.

Regarding claims 2, 7, and 11-16, apparatus limitations are not given undue weight in method claims. However, Beer '715 discloses a fuel-rich and fuel-lean combustion zone wherein the ratio of fuel to flue gas is 0.1-0.5 (see column 5, lines 10-16 and claim 7).

Regarding claims 3 and 8, Cochran '412 discloses the waste may be liquid waste from acrylonitrile, acrylic acid, or methacrylic acid production (column 1, lines 15-35).

Regarding claims 4 and 9, Beer '715 discloses combining the waste with a liquid fuel stream (see claim 1 and column 5, lines 8-9).

Regarding claims 5 and 10 Beer '715 discloses hydrogen cyanide is produced and reacted (see column 4).

Response to Arguments

3. Applicant's arguments filed 7/18/07 have been fully considered but they are not persuasive.

It is argued that the Examiner asserts that Cochran... VOCs and water. This is not persuasive because Cochran discloses VOCs and hydrocarbons, which would at least suggest aliphatic hydrocarbons and/or aromatics. And, in any case, Beer '715 discloses hydrogen cyanide is produced and reacted (see column 4).

It is argued that initially, it is noted that in Beer... treated and removed. This is not persuasive because Cochran '412 discloses a method for treating waste streams comprising feeding the stream comprising NO_x and CO to a thermal oxidizer or combustor and combusting at a location 18, (see column 4, lines 34-56 and Fig. 1). One cannot show nonobviousness by attacking

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references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

It is argued that additionally, contrary to the claimed... the nitrogen oxides. This is not persuasive for the reasons above.

Conclusion


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through

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Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Edward M. Johnson
Primary Examiner
Art Unit 1754

EMJ